

Ligo PTP 620S

7-26 GHz 620 Mbps Digital Microwave Point-to-Point Device



Product Overview

The LigoPTP 620S is split architecture, 7-26 GHz product platform designed to provide high capacity transmission, flexibility, and convenience for wireless communication networks. The PTP 620S digital point-to-point radios represent a new microwave radio product line that is designed to address universal applications for both Ethernet and TDM platforms. This advanced technology platform is designed to provide a flexible, cost-effective platform for customers now and into the future.

The PTP 620S equipment is based upon a common platform to support a wide range of network interfaces and configurations, with capacities up to 2 E1 / T1 (optional) and Gigabit Ethernet Full Duplex capacity up to 310 Mbps (620 Mbps aggregate). The radio family is spectrum and data rate scalable, enabling service providers or organizations to employ appropriate system gain with spectral efficiency and channel availability for optimal network connectivity. The PTP 620S series digital radios enable network operators (mobile and private), government and access service providers to offer a portfolio of secure and scalable wireless applications for data, video, and voice services.

The PTP 620S digital radio family is composed of a LigoWave Software Controlled Smart IDU and an Outdoor Unit (ODU). The IDU is designed to be frequency independent, and the ODU is designed to be capacity independent. The PTP 620S IDU allows selection for multiple capacity options, modulation types, radio frequency channels and transmit output power levels to accommodate and adhere to world-wide regulatory and spectral efficiency requirements. The IDU supports 1 Gigabit Ethernet port for customer traffic as well as an additional Fast Ethernet port for management traffic. The IDU also supports an optional module for adding 2 E1 or 2 T1 ports to the unit for quick and easy provisioning of TDM traffic over the link.

The PTP 620S Digital Radio includes integrated Operations, Administration, Maintenance, and Provisioning (OAM&P) functionality and design features enabling simple commissioning when the radio network is initially set up in the field or at the customer's premises.

Key Features

- Cost Effective Design
- Up to 620 Mbps data throughput (310 Mbps full duplex)
- No speed-based license fees - get full capacity out of the box
- Wide frequency range support from 7-26 GHz
- Flexible channel sizes from 3.5MHz to 56MHz
- ANSI and ETSI channel plans supported enabling worldwide support
- Auto-rate support (ACM) enables robust links
- One Common IDU for all Capacities/Frequencies
- Optional cost effective E1/T1 module for up to 2 E1/T1 support
- Software Controllable Capacities between T1/E1 and Ethernet

- Antennas available*:
 - PTP X-620S-ANT-1: includes 1 ft. diameter, slip-fit waveguide antenna
 - PTP X-620S-ANT-2: includes 2 ft. diameter, slip-fit waveguide antenna
 - PTP X-620S-ANT-3: includes 3 ft. diameter, slip-fit waveguide antenna
 - PTP X-620S-ANT-4: includes 4 ft. diameter, slip-fit waveguide antenna
 - PTP X-620S-ANT-6: includes 6 ft. diameter, slip-fit waveguide antenna (special order)
- User-Friendly Management System with support for Telnet, Web, and SNMP
- Very compact, yet powerful IDU saves space

*antenna availability varies based on local regulations

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Sales offices:

EMEA:

Veiveriu 150-IIIa. Kaunas,
LT-46931, Lithuania

Sauletekio al. 15-610, Vilnius, LT-
20000, Lithuania

Americas:

138 Mountain Brook Dr.
Canton, GA 30115, USA

984 Shetland Ave. Winter Springs, FL
32708 USA

Asia Pacific:

China-Beijing
Room 602, Everlast Plaza, No. 39,
Anding Road,
Chaoyang District, Beijing, China
100029

China-Shanghai
4H, No. 92, Guiping Road, Zuhui Dis-
trict, Shanghai, China 200233

China-Huizhou
No. 6, Huifeng East 2 Road, Zhongkai
Hi-Tech Industrial Development Zone
Huizhou, Guangdong, China

China-Shenzhen
No. 9, Dragon Jade Industrial District,
Bantian Village Buji Town Longgang
District, Shenzhen, China

Hong-Kong
B7, 6F, Chung Mei Centre, 15B Hing
Yip Stre
et, Kwun Tong, Kowloon, Hong Kong

Singapore
60 Kaki Bukit Place, #08-04/05 Eunos
Tech Park, Singapore 415979

Indonesia
Gedung Starpage Jl. Salemba Tengah
No. 5 Lt. 3, Jakarta Pusat, Indonesia

Taiwan
12F., No.33 Sec. 2, Roosevelt Road,
Taipei, Taiwan

Malaysia
No. 17 Jalan P2/12, Bandar Teknologi
Kajang, 43500 Semenyih, Selangor,
Malaysia

Philippines
3rd Floor. ETPI Bldg. #2161 Soler St,
Conner Calero St. Sta Cruz, Manila
City, Philippines

Thailand
169 Soi Sirindhorn 7, Charansanitwong
Road, Bangbamru, Bangplad, Bangkok
10700, Thailand

India
New No. 6, Old No. 16, Rajagopalan
Street, Valmiki Nagar, Thiruvanimiyur,
Chennai 600041, India

Performance								
Frequency range (GHz)		7/8	11	13	15	18	23	26
Channel bandwidth (MHz)		3.5-56MHz						
Modulation		QPSK / 16QAM / 32QAM / 64QAM / 128QAM / 256QAM						
Full Duplex Capacity (Aggregate)		310 Mbps (620 Mbps)						
Frequency stability		+/- 5ppm						
Max Power (dBm), Adjustable	QPSK	25.5	24.5	24.5	24.5	22.5	22.5	23.5
	16/32QAM	21.5	20.5	20	20	19	19	19.5
	64/128QAM	18.5	17.5	17.5	17.5	17	16	15.5
	256QAM	16.5	15.5	15.5	15.5	15	14	13.5
Receive Sensitivity (dBm), BER 10-6 @ 56MHz (40MHz for 11GHz) Channel	QPSK	-82	-83	-82	-82	-82	-82	-82
	16 QAM	-75	-76	-75	-75	-75	-75	-75
	32 QAM	-73	-72	-73	-73	-73	-73	-73
	64 QAM	-70	-70	-70	-70	-70	-70	-70
	128 QAM	-66	-67	-66	-66	-66	-66	-66
256 QAM	QPSK	-62	-64	-62	-62	-62	-62	-62
	16 QAM	-78	-78	-78	-78	-78	-78	-78
	32 QAM	-74	-74	-74	-74	-74	-74	-74
	64 QAM	-71	-71	-71	-71	-71	-71	-71
128 QAM	QPSK	-68	-68	-68	-68	-68	-68	-68
	16 QAM	-86	-86	-86	-86	-86	-86	-86
	32 QAM	-79	-79	-79	-79	-79	-79	-79
	64 QAM	-76	-76	-76	-76	-76	-76	-76
256 QAM	QPSK	-65	-65	-65	-65	-65	-65	-65
	16 QAM	-78	-78	-78	-78	-78	-78	-78
	32 QAM	-74	-74	-74	-74	-74	-74	-74
	64 QAM	-71	-71	-71	-71	-71	-71	-71
128 QAM	QPSK	-68	-68	-68	-68	-68	-68	-68
	16 QAM	-82	-82	-82	-82	-82	-82	-82
	32 QAM	-79	-79	-79	-79	-79	-79	-79
	64 QAM	-76	-76	-76	-76	-76	-76	-76
256 QAM	QPSK	-89	-89	-89	-89	-89	-89	-89
	16 QAM	-82	-82	-82	-82	-82	-82	-82
	32 QAM	-79	-79	-79	-79	-79	-79	-79
	64 QAM	-76	-76	-76	-76	-76	-76	-76
128 QAM	QPSK	-84	-84	-84	-84	-84	-84	-84
	16 QAM	-78	-78	-78	-78	-78	-78	-78
	32 QAM	-74	-74	-74	-74	-74	-74	-74
	64 QAM	-71	-71	-71	-71	-71	-71	-71
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